Line Charts are commonly preferred while analyzing a trend over a period.

Further, the line plot is also suitable where there is a need to compare relative changes in quantities across some variable like time.

Bar Plots are suitable to depict a comparison between cumulative totals across several groups.

Stacked Plots are used for bar plots for various categories.

Box Plot shows five statistically significant numbers - the minimum, the 25th percentile, the median, the 75th percentile and the maximum.

It is useful for visualizing the spread of data and for deriving inferences accordingly.

Scatter plots help in inspecting multiple variables simultaneously by color coding.

Scatter plots reveal the relationship or association between two variables; the extent to which one variable is affected by another.

Decision Trees are excellent tools that help in choosing the right action among several courses of actions.

They provide a highly effective structure to lay out options and investigate the possible outcomes of choosing those options.

Histograms are used to plot quantitative data, and the ranges of the data are grouped into bins or intervals.

Histograms show distributions of variables while bar charts compare variables.

'Parallel Coordinates' is a visualization technique for understanding multi-dimensional numerical datasets. Here, each dimension corresponds to a vertical axis, and each data element is displayed as a series of connected points along the axes.

Treemap is a 2D visualization technique for quickly analyzing large, hierarchical data. Each data element in a treemap is represented as a cell. The cell arrangement, size, color are each mapped to an attribute of that element, and these cells can be grouped by common attributes. Treemap provides users with the ability to see both the high-level overview and finer details of data.

A few other powerful Data Visualization tools include D3.JS, R Charts (ggplot2 package), Pentaho, SAP Lumira, TIBCO Spotfire, QlikView, JasperSoft, and Microstrategy.

**Measures of Dispersion**

* In the previous video you have seen the measures of central tendency i.e. a central value describing the data
* Now you will learn some measures of dispersion i.e. how to measure diversity of the data

Some measures of Dispersion

* Range
  + One of the most rudimentary ways to measure the diversity
  + Range is the difference between maximum and minimum value of an attribute
* Inter Quartile Range
  + IQR is another measure that is the difference between the third(Q3) and the first(Q1) quartile
* Standard Deviation
  + The most widely used measure of dispersion. It is the square root of the average squared deviation from the mean
* Variance
  + It is the square of standard deviation